

REMARKS/ARGUMENTS

Claim 1 has been amended by incorporating the limitations of Claims 10 and 21 therein. Thus, Claim 1 as now amended requires a liquid phase process occurring in the absence of added hydrogen, this process occurring exclusively in the liquid phase and at particular temperature and pressure ranges. The applied prior art, Tabak, Yan, and Kresge do not teach the presently claimed liquid phase process, either alone or in combination.

Tabak's reaction occurs in the vapor stage. See, e.g., column 9, lines 39-43. In addition, the reaction requires added hydrogen. See, e.g., column 9, lines 56-58 and e.g., Example 1 at the bottom of column 11. Further, the reaction temperature in Tabak must be at least 800°F (approximately 427°C). See column 2, lines 39-40. As noted at column 9, lines 33-38 of the reference, the operating conditions specified therein are important. Thus, there clearly is no motivation to so drastically alter the operating conditions in Tabak such that the described vapor isomerization is changed to a liquid phase process operating at a temperature substantially lower than the lowest effective operating temperature described in this reference and in the absence of added hydrogen. Essentially, Tabak is unrelated to the invention claimed herein.

Yan relates to a process where propyl and methylethylbenzenes are converted to xylene and benzene without converting trimethylbenzenes such as pseudocumene and mesitylene. See column 2, lines 5-12. In this process, the so-called "less valuable C₉ aromatic streams" can be upgraded to more valuable aromatics such as pseudocumene, mesitylene, xylene, and benzene. In this process mesitylene is not made by treating pseudocumene. In fact, the primary Yan process leaves pseudocumene and mesitylene alone. As noted at column 2, lines 18-23, in Yan C₉ aromatic feed streams may be co-processed with toluene or a mixed aromatic feedstock to provide increased xylene yields while also producing pseudocumene and mesitylene. Regardless, the addition of hydrogen to the

reaction is necessary, as explained in the portion of the Yan specification bridging columns 2 and 3. Thus when taken in combination with Tabak, Yan fails to teach the present invention.

This failure of the references to disclose the present invention is made clear by the summary Table provided below, comparing temperature, phase, presence of hydrogen, feed, and end product for the Tabak and Yan processes as compared with the present invention.

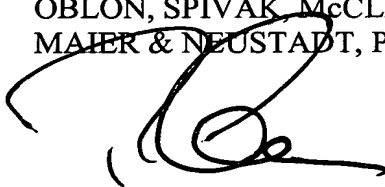
	Tabak	Yan	Present Appl.
Temperature °C	427-538	371-593	250-375
Phase	Vapor	Vapor	Liquid
Hydrogen	Yes	Yes	No
Feed	Alkyl benzenes	Alkylaromaic C9 containing propyl- and ethylbenzenes	Pseudocumene
End Product	Isomers	Elimination of propyl- and ethylmethylbenzenes	Mesitylene

Finally, and with regard to the de-oxygenation of pseudocumene, Kresge fails to make up for that lacking in Tabak, which discloses a vapor phase reaction occurring at temperatures above those presently claimed using added hydrogen. For this reason this combination of references fails to present a *prima facie* case.

Accordingly, and for the reasons presented above and in view of the above amendments to the claims Applicants submit that the present application is in condition for allowance, and early notification to this effect is respectfully requested.

Respectfully submitted,

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